

STATE HIGHWAY BRIDGE No. 2

Spanning Brandywine Creek at Rockland Road (CR 232),
2 miles northwest of the intersection of U.S. 202
and Rockland Road

Rockland
New Castle County
Delaware

HAER No. DE-35

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DEL
2-ROCLA
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD

National Park Service

Northeast Region

U.S. Custom House

200 Chestnut Street

Philadelphia, PA 19106

HAER
DEL
2-ROCLA,
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HISTORIC AMERICAN ENGINEERING RECORD

STATE HIGHWAY BRIDGE NO. 2 HAER No. DE-35

Location: Spanning Brandywine Creek on Rockland Road (CR 232), 2.0 miles northwest of the intersection of U.S. 202 and Rockland Road. Located in Rockland, New Castle County, Delaware.

USGA Quad: Wilmington North, DEL.-PA.
UTM 18.450990.4405100

Date of
Construction: 1933

Present Owner: Delaware Department of Transportation

Present Use: Riverine crossing for vehicles and pedestrians

Significance State Highway Bridge No. 2 is a highly ornamental example of a concrete-encased steel girder bridge. The construction of a new steel girder bridge for the Rockland crossing reflects a significant trend which occurred in the 1920's and 1930's in New Castle County, as the Levy Court pursued a systematic program of replacing obsolescent covered bridges with structures embodying modern technology.

Project
Information: This document was undertaken in October 1992 in accordance with the Memorandum of Agreement by the Federal Highway Administration as a mitigative measure prior to rehabilitation of the bridge. Rehabilitation work replaces parapet with a near identical architectural design, and cleans and patches remaining structure.

Therese M. Fulmer
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Location & Environmental Studies
Department of Transportation
Dover, DE 19903

State Highway Bridge No. 2 carries Rockland Road over Brandywine Creek. The project is located in the heart of the Rockland Historic District, New Castle County, Delaware. Rockland represents one of the earliest and longest functioning mill areas on the Brandywine. Brandywine State Park is situated along the banks of Brandywine Creek northwest of the structure and Rockland Road.

State Highway Bridge 2 (Rockland Bridge) comprises a 112'-4½" concrete-encased steel girder span, and a 10'-4" concrete frame span for an overall length of 164'. It carries two lanes of traffic on a 24'-0" roadway with a 4'-5" sidewalk on each side, for a total width of 33'-2". The superstructure rests on concrete abutments with U-shaped concrete wing walls. Seven concrete-encased steel I-beams of varying dimensions support the deck of the main span. The bridge features considerable architectural elaboration including a concrete parapet comprising battered "skyscraper style" end and intermediate posts spanned by a balustrade with triangular-headed openings. The fascia of both spans is treated as a segmental arch. Stone steps on the north end lead from the bridge deck to the ground below.

Delaware Department of Transportation records state that Bridge No. 2 was built in 1933 by the New Castle Levy Court, as confirmed by a plaque on the bridge which also lists Levy Court members. The Court awarded the contract to Charles H. Dunleavy of Coatesville, Pennsylvania, for his low bid of \$35,190. Alban P. Shaw, County Engineer, supervised the design. Drawings prepared by the Office of the New Castle County Engineer are on file at the Delaware Department of Transportation's Highway Administration Building located in Dover, Delaware; documenting the in-house design of this unique structure. Details of the concrete-encased trusses which form the girders of the bridge are clearly delineated, as are specifications for the elaborate "skyscraper style" concrete pylons and balustrade. References to "old masonry" throughout the plans indicate that the bridge incorporates part of the substructure of an earlier structure. The new steel girder bridge replaced a wooden covered bridge constructed in 1833 with hand hewn beams of white pine and a maximum load of six tons. Replacement was justified by the covered bridge's deteriorated condition and its reduced function capacity as traffic volume and weight increased during the twentieth century.

State Bridge No. 2 is a highly ornamental example of a concrete-encased steel girder bridge. In its simplest form, the concrete-encased girder was constructed frequently during the period 1925-1935. During this period, county road departments continued to improve and maintain roads and bridges under their jurisdiction, while the State Highway Department carried out the consolidation and improvement of the primary road system, and the development of the secondary road system throughout Delaware. The

construction of a new steel girder bridge for the Rockland crossing reflects a significant trend which occurred in the 1920s and 1930s in New Castle County, as the Levy Court pursued a systematic program of replacing obsolescent covered bridges with structures embodying modern technology. With the replacement of the Rockland covered bridge in 1933, New Castle County had reduced the number of its covered bridges to six. The replacement structures reflected changing technology, materials and aesthetics. Bridge 2 incorporates a structural detail which is unique among the bridges surveyed in Delaware, in that its girders comprise steel trusses encased in concrete, rather than the typical rolled sections. Designed by the local road department, the innovative structure is considered an exceptional example of its type.

HISTORIC AMERICAN ENGINEERING RECORD

BIBLIOGRAPHY

Delaware DOT records: Annual Reports; contract files stored at the Highway Administration Building, Dover, Delaware 19903.

Delaware State Archives, Division of Historical and Cultural Affairs, Hall of Records, Court Street, Dover, DE 19903. New Castle County Levy Court Records. Specifications, Proposals, Contract and Bond files.

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Mack, Warren W. "A History of Motor Highways in Delaware: in Reed, Henry Clay, Delaware A History of the First State, Vol. 2, pp. 535-550 (NY: Lewis Historical Publishing Co., 1947).

Plans on file at Delaware DOT, Highway Administration Building, Dover, Delaware 19903: Contract #BNC-88